

What is claimed is:

1. EL phosphor powder which contains phosphor particles that comprise zinc sulfide as the matrix thereof and contain an activator and a co-activator, wherein at least 30 % of the projected area of the phosphor particles contained in the EL phosphor powder are those having an aspect ratio (length of major axis/length of minor axis) of at least 1.5.

2. The EL phosphor powder according to Claim 1, wherein at least 50 % of the projected area of the phosphor particles contained in the EL phosphor powder are those having an aspect ratio (length of major axis/length of minor axis) of at least 1.5.

3. The EL phosphor powder according to Claim 1, wherein at least 70 % of the projected area of the phosphor particles contained in the EL phosphor powder are those having an aspect ratio (length of major axis/length of minor axis) of at least 1.5.

4. The EL phosphor powder according to Claim 1, wherein the mean aspect ratio (length of major axis/length of minor axis) of the phosphor particles having an aspect ratio (length of major axis/length of minor axis) of at least 1.5 is at least 2.

5. The EL phosphor powder according to Claim 1, wherein the mean aspect ratio (length of major axis/length of minor axis) of the phosphor particles having an aspect ratio (length of major axis/length of minor axis) of at least 1.5 is at least 3.

6. The EL phosphor powder according to Claim 1, wherein the EL phosphor particles have areal stacking defects and the mean spacing of the stacking defects is from 0.5 to 20 nm.

7. The EL phosphor powder according to Claim 1, wherein the activator is at least one ion selected from the group consisting of copper,

manganese, silver, gold and rare earth elements.

8. The EL phosphor powder according to Claim 1, wherein the co-activator is at least one ion selected from the group consisting of chlorine, bromine, iodine and aluminium.

5 9. The EL phosphor powder according to Claim 1, wherein the activator is copper ion and the co-activator is chloride ion.

10 10. The EL phosphor powder according to Claim 1, wherein the mean length of the major axis of the EL phosphor particles having an aspect ratio (length of major axis/length of minor axis) of at least 1.5 is at most 100 μm .

10 11. An EL device comprising the EL phosphor powder according to Claim 1.